

REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the claims are directed to patentable subject matter as set forth below.

Claims 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite based on lack of sufficient antecedent basis for the phrase "said at least one low-volatile non-volatile organic ..." in each of claims 2 and 62. The claims have been amended to address this matter. Proper antecedent basis is provided. Withdrawal of the §112 rejection is requested.

The outstanding rejections based on art are as follows:

- (1) Claims 2, 12, 16, 24, 26, 28, 38, 48, 50, 56 and 67 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,849,681 (Neumiller '681);
- (2) Claims 10, 14, 20, 22, 36, 46 and 58 under 35 U.S.C. §103(a) over Neumiller '681 as applied to the above claims, and further in view of U.S. Patent No. 5,716,921 (Neumiller '921);

- (3) Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-63, 65, 67-68 and 70-71 under 35 U.S.C. §103(a) over EP 0 527 625 A2 (Cummings);
- (4) Claims 2, 12, 16, 24, 26, 28, 36, 38, 48, 50, 56, 67 and 70 under 35 U.S.C. §103(a) over U.S. Patent No. 5,540,864 (Michael);
- (5) Claims 10, 14, 20, 22, 36, 46 and 58 under 35 U.S.C. §103(a) over Michael as applied to the above claims, and further in view of Neumiller '921;
- (6) Claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 under 35 U.S.C. §103(a) over Cummings as applied to the above claims and further in view of Neumiller '921;
- (7) Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-65, 67-68 and 70-71 under 35 U.S.C. §103(a) over WO 99/11123 (Conway);
- (8) Claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 under 35 U.S.C. §103(a) over Conway as applied to the above claims, and further in view of Neumiller '921;
- (9) Claims 11, 15, 23, 25, 27, 37, 49, 55, 62-65, 68 and 71 under 35 U.S.C. §103(a) over Michael as

applied to the above claims, and further in view of Conway;

(10) Claims 11, 15, 23, 25, 27, 37, 47, 49, 55 and 62-65 under 35 U.S.C. §103(a) over Neumiller '681 as applied to the above claims, and further in view of Conway;

(11) Claim 64 under 35 U.S.C. §103(a) over Cummings as applied to the above claims, and further in view of Conway;

(12) Claims 2, 9, 11-13, 15-16, 19, 21, 23-28, 35-38, 45, 47-50, 55-57, 62-65, 67-68 and 70-71 under 35 U.S.C. §103(a) over U.S. Patent No. 5,534,198 (Masters); and

(13) Claims 10, 14, 20, 22, 46, and 58 under 35 U.S.C. §103(a) over Masters as applied to the above claims, and further in view of Neumiller '921.

The above rejections are as previously set forth by the Examiner in the prior official action.

Applicants respectfully submit that while the Examiner has located various references that disclose certain isolated components of applicants' claimed compositions, the specific combinations as claimed are not taught by the applied art as evident from each rejection being under 35 U.S.C. §103 rather than under §102. Further,

in the absence of applicants' own disclosure, no teaching is provided by the applied art which would suggest to one skilled in the art to select these isolated components and combine them in a manner so as to achieve applicants' specific combinations.

One critical element of the claimed compositions is that the compositions, such as shown in the examples in the captioned application, have zero to low volatile organic compound (VOC) content while still providing desired detergency, evaporatability and no streaking or hazing. Typically, as shown by the applied art, the inclusion of a combination of alcohols, high volatile glycol ethers, low-volatile glycol ethers and surfactants were considered necessary to obtain cleaning and acceptable drying rates (see the captioned specification at page 1, paragraph 0002).

In contrast with this state of the art, applicants provide a novel combination of components and amounts which have zero to low VOC content, i.e., namely as claimed in independent claims 2 and 62 as being less than 4% by wt. VOC content, and which is even more specifically claimed in dependent claims 67, 68, 70 and 71 as a composition having a VOC content of "3% by weight or less" and "about 1% by wt. or less". These lesser amounts are even more clearly not

taught and are distinct from the teachings of the applied art.

To further emphasize the shortcomings of the applied art, applicants set forth below, in relation to the primary references, the shortcomings in teachings, and thus the shortcomings as to any suggestion therefrom, with respect to the claimed compositions.

The primary reference Neumiller '681 (which is applied alone and in combination with a secondary reference) fails to disclose -

- a composition including an amphoteric surfactant as claimed;
- a composition including a combination of amphoteric surfactant and anionic surfactant as claimed; and
- a composition with a VOC content as claimed or recognition of criticality as to VOC content and combination of a low-volatile evaporative organic solvent with properties as claimed.

Neumiller '681 does not provide any teaching or suggestion of importance in including a low-volatile evaporative organic solvent including a non-volatile organic compound (non-VOC) which is a glycol ether having a defined limited water solubility and surface tension reduction capacity as .

claimed, in particular in combination with an amphoteric surfactant, a co-solvent and aqueous carrier wherein the composition has a VOC content of less than about 4% by wt., and more specifically less than 3% by wt. and even more specifically as less than about 1% by wt. Applicant further claims in dependent claims more specific combinations which are also not taught in the applied reference. In addition to the above shortcomings, the claims require in specific combinations in dependent claims that the amphoteric surfactant is disodium cocoamphodipropionate (dependent claims 9 and 10), the low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether (dependent claims 11-14 and 19-22), the specific combination of an anionic surfactant with the amphoteric surfactant (dependent claims 15-16), in particular where the anionic surfactant is further defined as a sulfate and/or sulfonate compound (dependent claims 19-20), and further requires propylene glycol as the polyhydric alcohol present in the combination (dependent claims 27-28 and 35-36).

Accordingly, based on the acknowledged failings of Neumiller '681 and the lack of additional teachings to motivate particular selections from a myriad of other compounds such as, for example, no additional teaching as to particular water-solubility and surface tension reduction

capacity of an evaporative organic solvent and no desired VOC content, no suggestion is provided to obtain the combination as claimed by applicants to provide a cleaning composition with a VOC content of less than 4% by wt., especially less than 3% by wt. and in more so less than about 1% by wt.

The primary reference Cummings, which is applied alone and in combination with a secondary reference, fails to disclose -

- a composition including an amphoteric surfactant;
- a composition including both amphoteric and anionic surfactants;
- a composition having a VOC content of less than 4% by wt., or less than 3% by wt. or less than about 1% by wt.;
- a co-solvent including an alcohol and alkanolamine; and
- any recognition of criticality of a particular VOC content, in particular with a combination of components as claimed.

The claimed surfactants in combination with the defined low-volatile evaporative organic solvent with limited solubility in water of less than 20% and which reduces the surface tension of the composition to less than 40 dynes/cm would

not be an obvious substitution in view of the absence of any teaching which would motivate or suggest such specific selection. Accordingly, in absence of applicants' disclosure there is no reason to provide a composition having at least an amphoteric surfactant, defined VOC content, low-volatile evaporative glycol ether solvent with defined properties as claimed, and co-solvent including an alkanolamine and alcohol. Since these compounds are not obvious to provide in combination, it would not be obvious to further define particular compounds in the combination as claimed in the dependent claims, i.e., a disodium cocoamphodipropionate amphoteric surfactant, ethylene glycol n-hexyl ether as the organic solvent, a sulfate and/or sulfonate as the anionic surfactant, propylene glycol as the polyhydric alcohol, and monoethanolamine as the alkanolamine. Applicants are claiming a particular combination in order to obtain a zero to low volatile composition which provides acceptable cleaning of hard surfaces as described in the captioned application. Such is not taught or suggested by Cummings.

The primary reference Michael, which is applied alone and in combination with a secondary reference, fails to disclose a hard surface cleaning composition containing a combination of -

- the defined glycol ether low-volatile solvent with limited solubility in water of less than 20% and ability to reduce surface tension of the composition to less than 40 dynes/cm,
- an amphoteric surfactant, and
- a co-solvent different from the defined glycol ether and including an alcohol and alkanolamine.

Michael provides no recognition of criticality of VOC content, in particular as to being less than 4% by wt., or more particularly less than 3% by wt., and most particularly as less than about 1% by wt., each of which are separately claimed. Thus, no suggestion is provided by Michael which would lead to the selection of the specific compounds as claimed to provide a combination as claimed by applicants, in particular in amounts as claimed by applicants to provide a composition with the claimed zero to low VOC content and yet providing cleaning as desired of hard surfaces.

As to the primary reference Conway, which is applied alone and in combination with a secondary reference, such fails to disclose -

- a cleaning composition including ethylene glycol n-hexyl ether, amphoteric and anionic surfactants, isopropanol, propylene glycol or monoethanolamine,
- in amounts as claimed,

- which upon combination have a VOC content of less than 4% by wt.

Selection of such a combination is not a mere optimization in the absence of suggestion to motivate a particular selection as to compounds and amounts, in particular to obtain a cleaning composition with the defined VOC content. No recognition of importance is provided as to VOC content, or water solubility of a solvent, or surface tension reduction capacity of the solvent, or that the solvent is a low-volatile evaporative organic solvent, is provided. In view of the lack of teaching relevant to applicants' invention and the inclusion of teachings in Conway which teach away from applicants' invention (e.g., teaching optimum ranges for components which clearly results in a VOC content greatly in excess of that claimed), mere substitution or optimization is not presented by Conway. In fact, if the optimum teachings of Conway were followed to provide substitution or optimization, such would lead to compositions opposite to that claimed by applicants.

As to the primary reference Masters, which is applied alone and in combination with a secondary reference, Masters also fails in its disclosure to teach or suggest applicants' claimed compositions. Masters describes a composition that does not leave objectionable levels of

spots and/or film on a surface. This is taught as being achieved by including in specific combination, a detergent surfactant, a hydrophobic volatile solvent, an alkaline material, a polymer and an aqueous solvent system. The hydrophobic volatile solvent is described as being a degreasing solvent such as commonly used in the dry cleaning industry or metalworking industry or hard surface cleaner industry. Accordingly, Masters specifically teaches away from the claimed composition which has a VOC content of less than 4% by wt., and in particular can have the claimed lesser amounts of less than 3% by wt. and less than about 1% by wt. The ranges for the amount of hydrophobic solvent suitable for use disclosed in Masters includes amounts which are in clear excess of the claimed VOC content and, thus, Masters does not recognize any criticality as to the zero to low VOC content and thus provides no suggestion for selecting compounds which would provide a composition which has such property. Masters further does not teach the claimed

- combination of compounds,
- claimed amounts of compounds,
- claimed volatility,
- claimed water solubility of organic evaporative solvent, and

- claimed surface reduction capacity of an evaporative organic solvent.

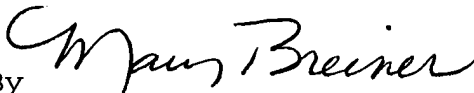
The secondary references, which are relied on for certain isolated teachings, fail to make up for the same shortcomings of the primary references with which they are combined. When the teachings of the combined references are taken as a whole, such are deficient on the same basis as set forth above as to each primary reference. As to each of the references, which the Examiner acknowledges fails to teach one or more aspects of the claimed compositions, more than the teachings thereof is required in order to provide applicants' claimed compositions in view of the shortcomings set forth above. More than mere substitution and optimization is required in view of the deficiencies in teachings of the applied references in order to render the claims obvious within the meaning of 35 U.S.C. §103. Thus, applicants respectfully request withdrawal of the outstanding §103 rejections.

Reconsideration and allowance of the claims are respectfully urged.

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Respectfully submitted,

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